

REMARKS**Claim amendments**

Applicants have added Claims 28-31 and have amended Claims 1, 16, 19, 24, and 25 to more precisely claim the subject matter they regard as their invention.

Support for the amendments of Claims 16, 19, 24, and 25 and for the new Claims 28-31 can be found in the figures, for example.

Claim 1 has been amended to refer to a "user's finger or stylus", as this is a preferred way of implementing Applicants' methodology. With respect to the term "user's finger", support can be found, for example, on page 9, lines 3-5, of the specification, which states that an advantage of the invention is that it can reduce "the time it takes to complete the two-key sequence, as a result of the shorter distance moved by the user's finger". With respect to the term "stylus", support can be found, for example, on page 16, lines 11-13, which states that "key selections may be made with a stylus, so that letters may be "written" through stroking actions..."; in this regard, see also Figure 13.

Claim rejections

The Examiner rejected Claims 1-25 as being unpatentable under 35 USC 103(a) over US Patent 4,555,193 to Stone ("Stone").

Applicants believe that this rejection is inappropriate and respectfully ask reconsideration in view of the following remarks. Specifically, Applicants believe that there are crucial differences between their invention and that of Stone, in terms of both

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methodology and apparatus, and that in view of these differences, a rejection of Applicants' claims is inappropriate.

Methodology and apparatus of Stone

A review of the principles of operation of the embodiments disclosed in Stone is a good starting point.

In Stone, the number of symbols appearing on any given key depends on the position of that key in its respective field: Keys further to the left have more symbols, whereas keys further to the right necessarily have fewer symbols. This is clear from a careful reading of Stone, e.g., Figures 1-2 and column 4, line 64 through column 5, line 2:

...in the horizontal fields 12, 14, 16 the leftmost character on the key is selected by actuating the single key independently of any other. The second character is selected by concurrent actuation with the neighboring key to the right. The third character is selected by concurrent actuation with the key two positions to the right and so on.

For the same reason, the keyboard of Stone requires a greater number of colors to be used. Note that in Stone's preferred embodiment "five background colors are used in the keyboard..."; see column 3, lines 28-29.

In particular, consider the field in Stone that is dedicated to numerals, shown in Figures 1 and 2. Note that the number of numerals on the keys decreases as one moves along the row from left to right. The most leftward key 12a has four numerals ("1", "2", "3", and "4"), the key 12b to its immediate right has three ("5", "6", and "7"), the next key 12c has two ("8" and "9"), and finally the key furthest to the right 20d has just one ("0"). The

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methodology of Stone demands that the number of numerals on the keys must decrease in this fashion, since keys to the right are used for the purpose of disambiguation.

Note that if the most rightward key 20d were to have, for example, 4 numerals or symbols displayed on it, Stone's methodology would permit only one of these 4 to be selected (e.g., a symbol that was colored black), and that symbol could be chosen by simply selecting the key 20d, just as the blackened numeral "1" is selected by simply selecting the key 12a. However, Stone would not allow any of the other three symbols to be selected. This is because there are no keys to the right of the key 20d that can be used in combination with the key 20d to select additional symbols.

Stone cannot be applied to Applicants' embodiments

The preceding paragraph should be borne in mind when considering whether Stone can be applied to Applicants' embodiments. In this regard, it is helpful to consider the specific embodiment shown in Figure 10 of Applicants' specification. Note that each of the keys in the far right column of this layout displays the numerals "3", "6", and "9" along with at least 3 letters. There is no way that Stone's methodology, however, can be used to select each and every one of the alphanumeric symbols on these three keys, since there is no key to the right of the "3", "6", and "9" keys that can provide the needed disambiguation. Indeed, the same problem is evident for keys in the far left hand column and the middle column of Figure 10. For example, the key bearing the numeral "4" displays 3 letters, but since there are only two keys to the right of the 4-key, the methodology of Stone would permit only 2 of

them to be selected. Thus, the methodology of Stone simply can not be applied to Applicants' preferred embodiment of Figure 10.

Accordingly, standard telephone and cellphone keyboards may be used with Applicants' methodology, whereas the methodology of Stone can not be applied to these standard keyboards. This difference arises because Stone's concurrent actuation of keys requires that the key providing disambiguation be to the right of the key displaying the desired alphanumeric. In Applicants' invention, disambiguation is provided by a subsequently selected key that may, for example, lie to the left or to the right of the first selected key, or the first selected key itself may provide any needed disambiguation, thereby permitting more alphanumeric characters to be displayed on a given number of keys. Note that Applicants' Claims 5-12, 15-17, 20-22, and 28-31 are all directed to embodiments that include a 3 x 3 matrix of keys, which are consistent with standard telephone and cellphone keyboards (an example of which is shown in Figure 10), as opposed to the keyboard of Stone. Since the methodology of Stone can not be applied to these embodiments, an obviousness rejection is inappropriate.

Applicants' other claims are not specifically directed to a 3 x 3 matrix of keys, but the same problem with Stone discussed above argues against applying the methodology of Stone to the other embodiments claimed by Applicants. In each of independent Claims 1 and 13, for example, there is a limitation directed to "each of at least 8" numeral-displaying keys having language characters thereon. Trying to apply Stone's methodology to any such layout leads to problems with disambiguation like those discussed above, because in general there will be at least a few keys with too many symbols. This is evidently why Stone does

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not mix numerals and letters on the same keys. (Claim 1 as amended further includes a limitation directed to selecting sequential keys with "a user's finger or stylus", which further distinguishes Stone, which would require more than one finger or stylus when selecting two keys.) Likewise, independent Claims 24 and 25 are directed to embodiments in which both the numerals 0-9 and letters of the English alphabet appear on the same keys. Applying the methodology of Stone to any such layouts would not be obvious in view of the shortcomings of Stone discussed above, since there would be in general too many alphanumeric symbols for too few keys.

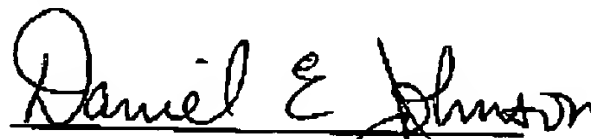
Summary

There are significant differences between Applicants' invention and that of Stone, as discussed above. Applicants believe that their claim language adequately distinguishes the prior art, including Stone.

The Examiner is encouraged to call the undersigned to expedite the prosecution of this application.

Respectfully submitted,

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